

LHMP ANNEX

Town of Tiburon

Introduction

The Town of Tiburon is a small town located in southeastern Marin County, California. The Town has a population of 8,666 people, based on the 2000 census¹. In Fiscal Year 2004/05, the Town's operating budget was \$6.7 million. The Town has 42.65 Fulltime Equivalent (FTE) employees. While the Town provides local police services, the fire services are supplied by separate fire districts.

The Planning Process

The Town of Tiburon has developed this plan at the same time as it has conducted an update of its General Plan, including the Safety Element. As part of the General Plan Update process, the Town completed a Public Participation Program in 2002 which featured three workshops and a survey sent to all mailing addresses within Tiburon. Additionally, the Safety Element of the General Plan was the subject of a white paper and community discussion, held in August and September 2004, about hazard issues that are relevant to Tiburon's Planning Area. Through the General Plan Update process, the community has expressed support for continuing to guide development away from hazardous areas to the extent feasible, ensuring safe subdivision and building design, and encouraging disaster preparedness planning.

In addition, the Town routinely enforces the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The Town's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the Town were fed into the planning process for the multi-jurisdictional plan. The Town participated in various ABAG workshops, and meetings, including the "kick-off" meeting. In addition, the Town has provided written and oral comments on the multi-jurisdictional plan. Finally, the Town provided information on facilities that are viewed as "critical" to ABAG.

Key Town Staff has met to identify and prioritize mitigation strategies appropriate for the Town. Staff involved in this process included the Police Chief, Public Works Director, Building Official, and Advance Planner. The general priorities and appropriate Town departments were identified, as well as preliminary budgets and potential funding sources for strategies designated as "High" priority. The resolution adopting the plan and strategies was adopted by the City Council on October 5, 2005.

¹ For complete Census information on this Town, see <http://www.bavareacensus.ca.gov/>.

Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). These hazards also impact this community, except for surface faulting. Surface faulting is not a hazard in the Town of Tiburon because no active faults are located in the Town.

While the Town has undertaken a number of general hazard mapping activities as part of the General Plan Update, all of these maps are less detailed and are not as current as those shown on the ABAG website at: <http://quake.abag.ca.gov/mitigation/>.

Information on disasters declared in Marin County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The Town examined the hazard exposure of Town land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the approximately 2,800 acres which make up the Town,

- ◆ Earthquake faulting – No active faults run within the Town so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking - 90 acres are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – While earthquake-induced landslides may be a hazard in the Town of Tiburon, the California Geological Survey has not completed mapping of this hazard in the Town of Tiburon.
- ◆ Earthquake liquefaction - 275 acres are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the Town of Tiburon, the mapping of inundation areas has not been completed at this time.
- ◆ Flooding - 130 acres are in the 100-year flood plain, while an additional 45 acres are in other flood-prone areas;
- ◆ Landslides - 475 acres are in areas of existing landslides;
- ◆ Wildfires - 200 acres are subject to high wildfire threat, and 1,750 acres are in wildland-urban interface threat areas.
- ◆ Dam Inundation – There are no dams or dam inundation areas within the Town.
- ◆ Drought – The entire Town is subject to drought.

The Town also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. The ABAG maps show as roads many trails or are roads maintained by other entities. For example, the entire road and trail system of Angel Island State Park is included in ABAG's totals. Based on mapping completed for the General Plan Update, Town Staff determined the following:

Of the approximately 30 miles of Town maintained roadway in the Town,

- ◆ Earthquake faulting – No active faults run within the Town so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – Four miles of roadway are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – While earthquake-induced landslides may be a hazard in the Town of Tiburon, the California Geological Survey has not completed mapping of this hazard in the Town of Tiburon.
- ◆ Earthquake liquefaction – Eight miles of roadway are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the Town of Tiburon, the mapping of inundation areas has not been completed at this time.
- ◆ Flooding - Two miles of roadway are in the 100-year flood plain, while an additional two miles is in other flood-prone areas;
- ◆ Landslides - Six miles of roadway are in areas of existing landslides;
- ◆ Wildfires - Three miles of roadway are subject to high, very high, or extreme wildfire threat, and 20 miles of roads are in wildland-urban interface threat areas.
- ◆ Dam inundation - There are no dams or dam inundation areas within the Town.
- ◆ Drought – is not a hazard for roadways.

Finally, the Town examined the hazard exposure of critical health care facilities, schools, and Town-owned buildings based on the information on ABAG's website at

<http://quake.abag.ca.gov/mitigation/pickerit.html>. Of the critical facilities in the Town,

- ◆ Earthquake faulting – No active faults run within the Town so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking - one Town-owned critical facility and one special district critical facility are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides - While earthquake-induced landslides may be a hazard in the Town of Tiburon, the California Geological Survey has not completed mapping of this hazard in the Town of Tiburon.
- ◆ Earthquake liquefaction - one school and two Town-owned critical facilities in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis - While tsunamis may be a hazard in the Town of Tiburon, the mapping of inundation areas has not been completed at this time.
- ◆ Flooding - no critical health care facilities, schools, or Town-owned critical facilities are in the 100-year flood plain; and one elementary school and one Town-owned critical facility is in other flood-prone areas.
- ◆ Landslides - one special district critical facility is in areas of existing landslides;
- ◆ Wildfires - one long-term care facility, three schools, two Town-owned and two special districts critical facilities are in wildland-urban interface threat areas.
- ◆ Dam Inundation - There are no dams or dam inundation areas within the Town.
- ◆ Drought – Drought will not affect Town buildings directly. However, the Town does not operate a water-supply distribution system.

There are three repetitive loss properties in the Town based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>. Repetitive loss properties are those that have had more than one insured flood loss.

The Town plans to work with ABAG during 2005 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the Town.

Drought, though a potential problem in the Town, is not fully assessed. The Town will work with ABAG and the Marin Municipal Water District on this issue.

The Town plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. The ABAG Annex states that ABAG will be doing this work in 2005 through early 2006.

As these impacts are not fully developed, the Town has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that wildfires and wildland-urban interface fires, landslides (including unstable earth), earthquakes, and flooding pose a significant risk for potential loss.

Mitigation Activities and Priorities

As a participant in the ABAG multi-jurisdictional planning process, Town of Tiburon Staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at a meeting of the Police Chief, Public Works Director, Building Official, and Advance Planner on March 1, 2005. At the meeting, all of the mitigation strategies in the ABAG multi-jurisdictional plan were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage. These priorities were provided to the City Council on October 5, 2005.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing Town programs.

The Plan Maintenance and Update Process

The Town Manager's Office will ensure that *monitoring* of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of Town department heads at least once a year. At that meeting, the department heads will focus on *evaluating* the

Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The Town of Tiburon is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Town Community Development Director will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the Town again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The **public** will continue to be involved whenever the plan is updated, and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the Town will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.